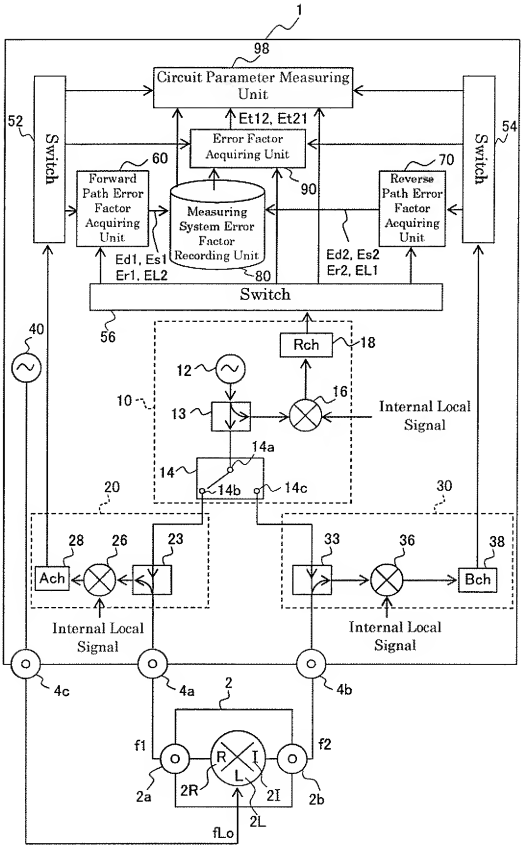
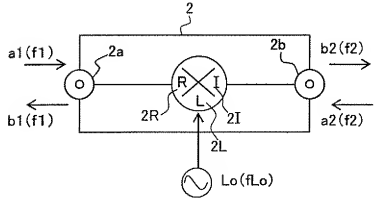

1
98
Circuit Parameter Measuring Unit
52
Switch
Et12, Et21
Error Factor Acquiring Unit
54
Switch
60
Forward Path Error Factor Acquiring Unit
90
70
Reverse Path Error Factor Acquiring Unit
Measuring System Error Factor Recording Unit
Ed1, Es1
Er1, EL2
80
Ed2, Es2
Er2, EL1
Switch
56
40
Rch
18
12
10
13
16
Internal Local Signal
14a
14
14b
14c
20
30
28
26
23
33
36
38
Ach
Bch
Internal Local Signal
Internal Local Signal
4c
4a
2
4b
f1
f2
R
I
L
2a
2R
2I
2b
2L
fLo

Fig. 1

(a)



(b)

$$\begin{pmatrix} b1(f1) \\ b2(f2) \end{pmatrix} = \begin{pmatrix} M11 & M12 \\ M21 & M22 \end{pmatrix} \begin{pmatrix} a1(f1) \\ a2(f2) \end{pmatrix}$$

Fig. 2

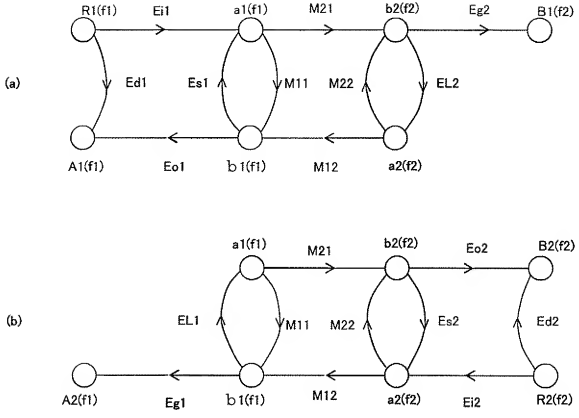

(a)
R1(f1)
Ei1
a1(f1)
M21
b2(f2)
Eg2
B1(f2)
Ed1
Es1
M11
M22
EL2
A1(f1)
Eo1
b1(f1)
M12
a2(f2)
(b)
a1(f1)
M21
b2(f2)
Eo2
B2(f2)
EL1
M11
M22
Es2
Ed2
A2(f1)
Eg1
b1(f1)
M12
a2(f2)
Ei2
R2(f2)

Fig. 3

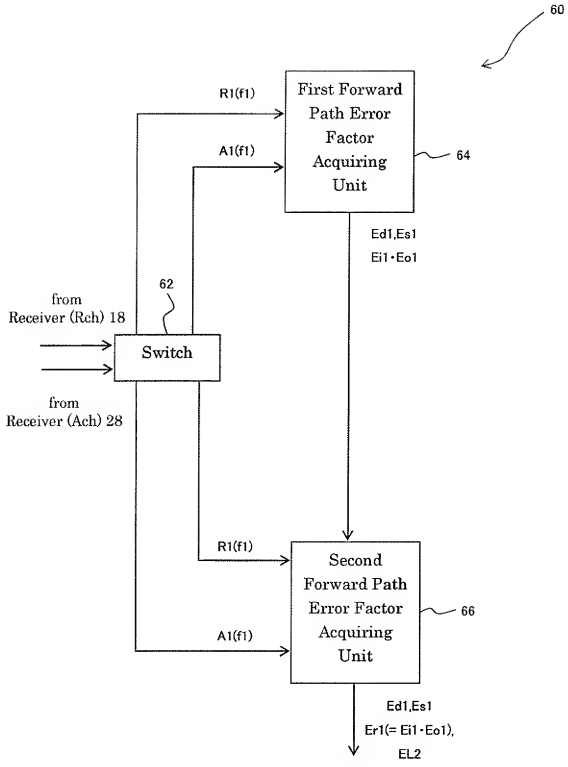

60
First Forward Path Error Factor Acquiring Unit
64
R1(f1)
A1(f1)
Ed1,Es1
Ei1・Eo1
62
from Receiver (Rch) 18
Switch
from Receiver (Ach) 28
R1(f1)
Second Forward Path Error Factor Acquiring Unit
66
A1(f1)
Ed1,Es1
Er1(= Ei1・Eo1),
EL2

Fig. 4

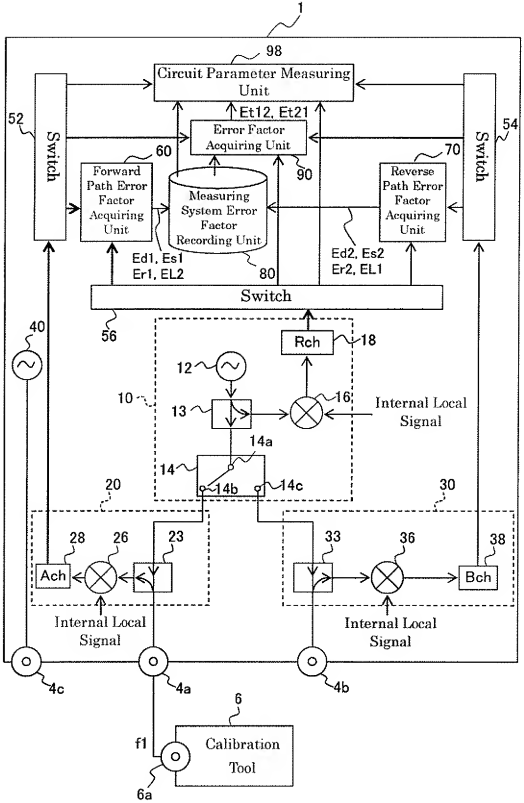

1
98
Circuit Parameter Measuring Unit
Et12, Et21
Error Factor Acquiring Unit
90
52
Switch
54
Switch
60
Forward Path Error Factor Acquiring Unit
70
Reverse Path Error Factor Acquiring Unit
Measuring System Error Factor Recording Unit
80
Ed1, Es1
Er1, EL2
Ed2, Es2
Er2, EL1
Switch
56
40
Rch
18
12
10
13
16
Internal Local Signal
14a
14
14b
14c
20
30
28
26
23
33
36
38
Ach
Bch
Internal Local Signal
Internal Local Signal
4c
4a
4b
6
f1
Calibration Tool
6a

Fig. 5

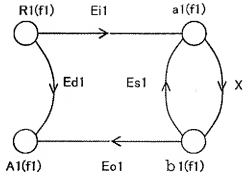


Fig. 6

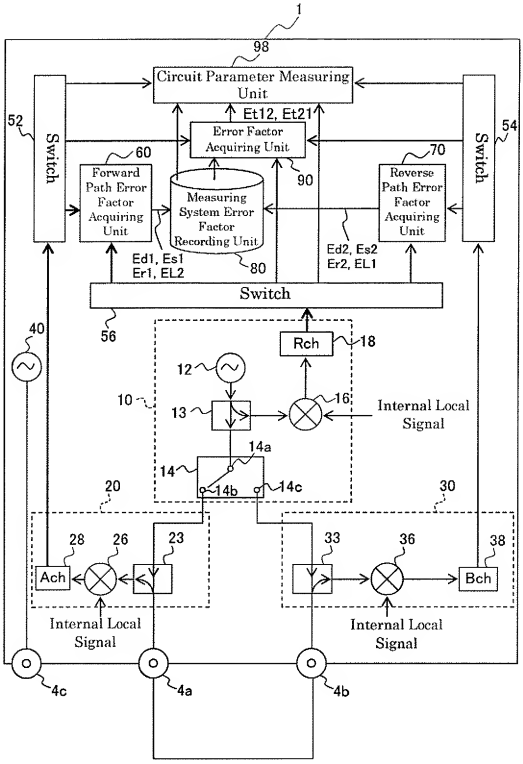

1
98
Circuit Parameter Measuring Unit
Et12, Et21
52
Switch
Error Factor Acquiring Unit
54
Switch
60
70
Forward Path Error Factor Acquiring Unit
90
Measuring System Error Factor Recording Unit
Reverse Path Error Factor Acquiring Unit
Ed1, Es1
Er1, EL2
80
Ed2, Es2
Er2, EL1
Switch
56
40
Rch
18
12
10
13
16
Internal Local Signal
14a
14
14b
14c
20
30
28
26
23
33
36
38
Ach
Bch
Internal Local Signal
Internal Local Signal
4c
4a
4b

Fig. 7

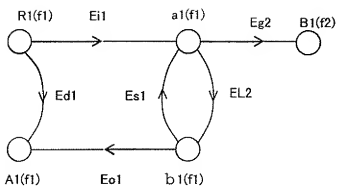


Fig. 8

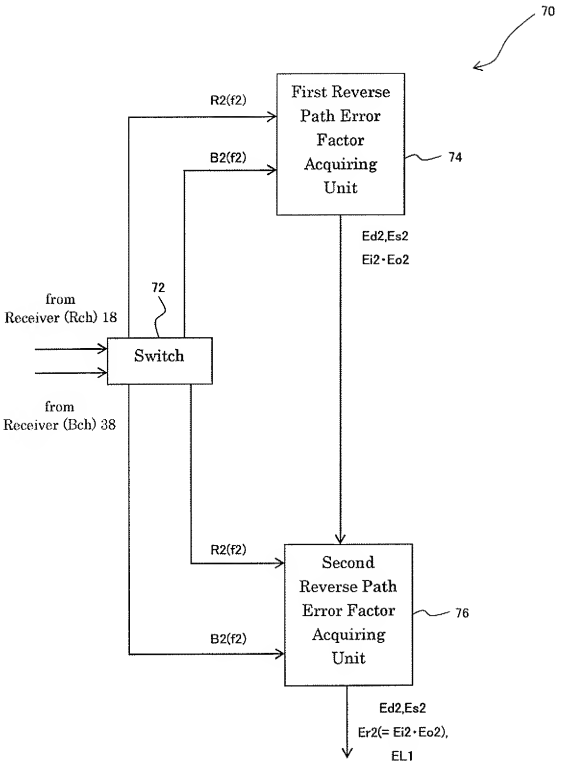

70
First Reverse Path Error Factor Acquiring Unit
74
R2(f2)
B2(f2)
Ed2,Es2
Ei2・Eo2
72
from Receiver (Rch) 18
Switch
from Receiver (Bch) 38
Second Reverse Path Error Factor Acquiring Unit
76
R2(f2)
B2(f2)
Ed2,Es2
Er2(= Ei2・Eo2),
EL1

Fig. 9

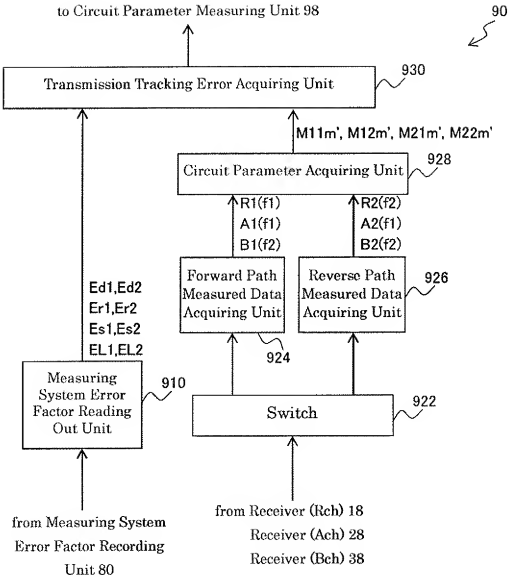

to Circuit Parameter Measuring Unit 98
90
Transmission Tracking Error Acquiring Unit
930
M11m', M12m', M21m', M22m'
Circuit Parameter Acquiring Unit
928
R1(f1)
A1(f1)
B1(f2)
R2(f2)
A2(f1)
B2(f2)
Forward Path Measured Data Acquiring Unit
Reverse Path Measured Data Acquiring Unit
926
924
Ed1,Ed2
Er1,Er2
Es1,Es2
EL1,EL2
Measuring System Error Factor Reading Out Unit
910
Switch
922
from Measuring System Error Factor Recording Unit 80
from Receiver (Rch) 18
Receiver (Ach) 28
Receiver (Bch) 38

Fig. 10

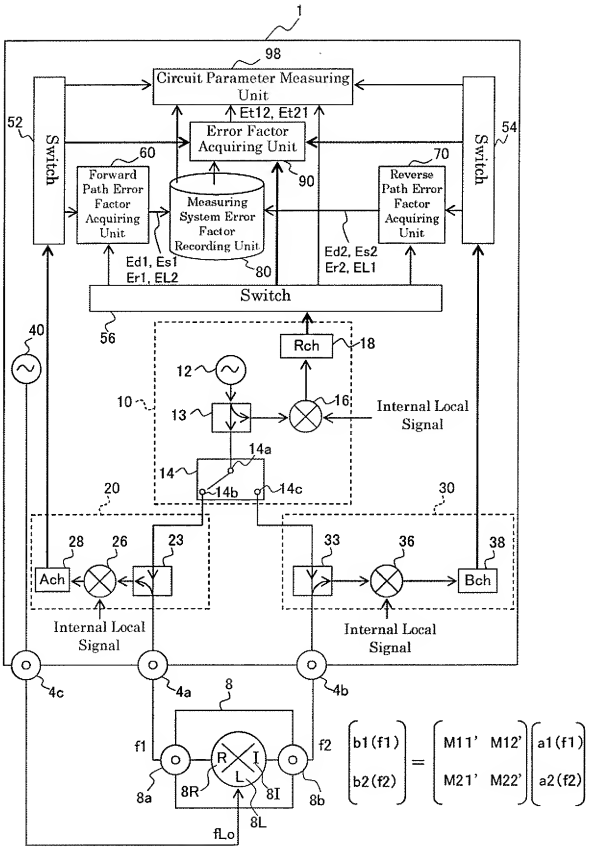

1
98
Circuit Parameter Measuring Unit
Et12, Et21
Error Factor Acquiring Unit
90
52
Switch
54
Switch
60
Forward Path Error Factor Acquiring Unit
70
Reverse Path Error Factor Acquiring Unit
Measuring System Error Factor Recording Unit
80
Ed1, Es1
Er1, EL2
Ed2, Es2
Er2, EL1
Switch
56
40
Rch
18
12
10
13
16
Internal Local Signal
14a
14
14b
14c
20
30
28
26
23
33
36
38
Ach
Bch
Internal Local Signal
Internal Local Signal
4c
4a
8
4b
f1
f2
R
I
L
8a
8R
8I
8b
8L
fLo
$\begin{pmatrix} b1(f1) \\ b2(f2) \end{pmatrix} = \begin{pmatrix} M11' & M12' \\ M21' & M22' \end{pmatrix} \begin{pmatrix} a1(f1) \\ a2(f2) \end{pmatrix}$

Fig. 11

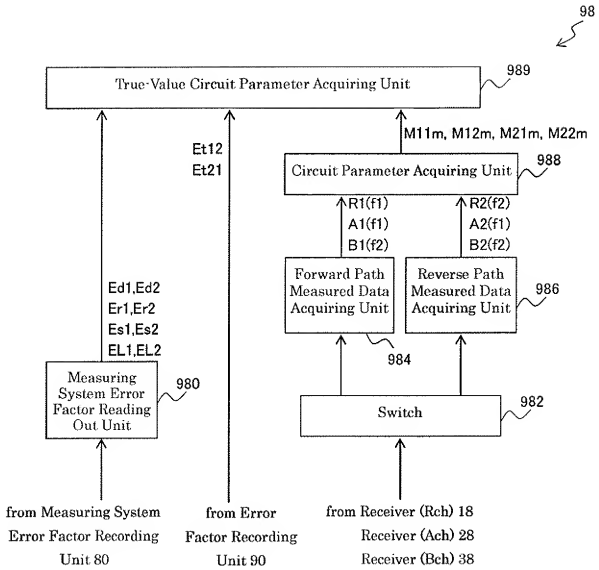

98
True-Value Circuit Parameter Acquiring Unit
989
M11m, M12m, M21m, M22m
Et12
Et21
Circuit Parameter Acquiring Unit
988
R1(f1)
A1(f1)
B1(f2)
R2(f2)
A2(f1)
B2(f2)
Forward Path Measured Data Acquiring Unit
Reverse Path Measured Data Acquiring Unit
986
Ed1,Ed2
Er1,Er2
Es1,Es2
EL1,EL2
984
Measuring System Error Factor Reading Out Unit
980
Switch
982
from Measuring System Error Factor Recording Unit 80
from Error Factor Recording Unit 90
from Receiver (Rch) 18
Receiver (Ach) 28
Receiver (Bch) 38

Fig. 12

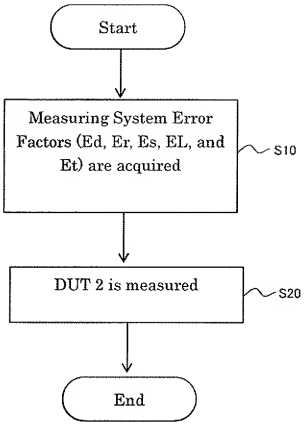

Start
Measuring System Error Factors (Ed, Er, Es, EL, and Et) are acquired
S10
DUT 2 is measured
S20
End

Fig. 13

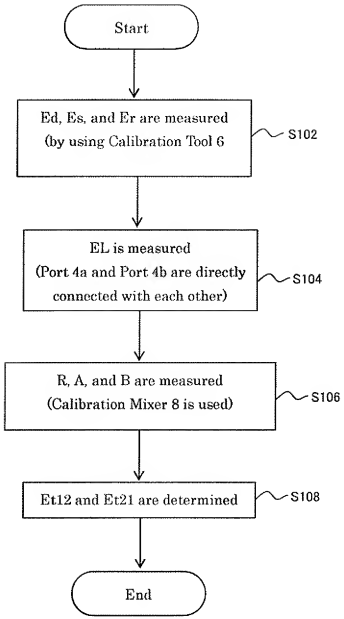

Start
Ed, Es, and Er are measured
(by using Calibration Tool 6
S102
EL is measured
(Port 4a and Port 4b are directly
connected with each other)
S104
R, A, and B are measured
(Calibration Mixer 8 is used)
S106
Et12 and Et21 are determined
S108
End

Fig. 14

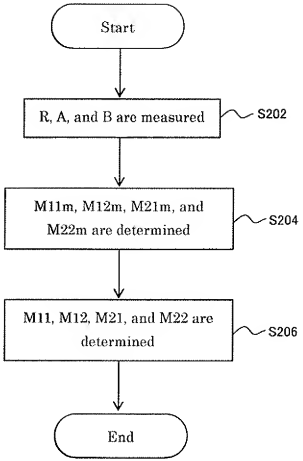

Start
R, A, and B are measured
S202
M11m, M12m, M21m, and M22m are determined
S204
M11, M12, M21, and M22 are determined
S206
End

Fig. 15

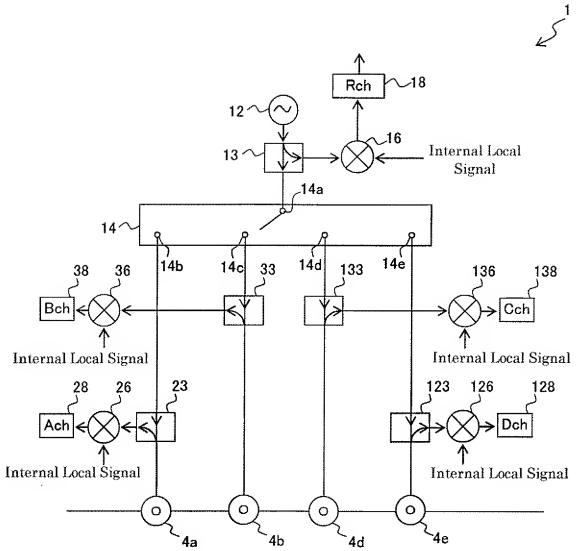

1
Rch
18
12
16
13
Internal Local Signal
14a
14
14b
14c
33
14d
133
14e
38
36
136
138
Bch
Cch
Internal Local Signal
Internal Local Signal
28
26
23
123
126
128
Ach
Dch
Internal Local Signal
Internal Local Signal
4a
4b
4d
4e

Fig. 16

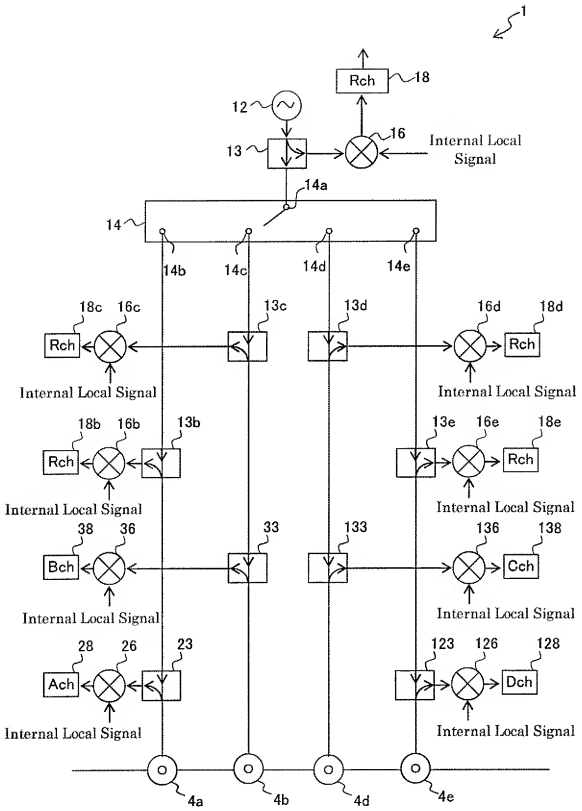

1
Rch
18
12
13
16
Internal Local Signal
14a
14
14b
14c
14d
14e
18c
16c
13c
13d
16d
18d
Rch
Internal Local Signal
18b
16b
13b
13e
16e
18e
38
36
33
133
136
138
Bch
Cch
28
26
23
123
126
128
Ach
Dch
4a
4b
4d
4e

Fig. 17

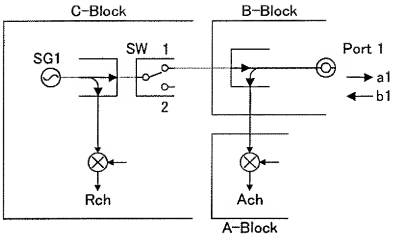


Fig. 18

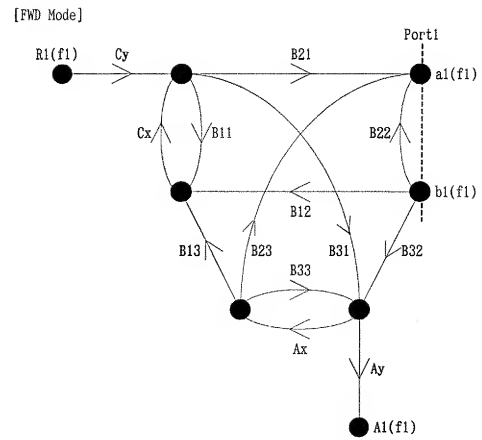

[FWD Mode]
Port1
R1(f1)
Cy
B21
a1(f1)
Cx
B11
B22
b1(f1)
B12
B13
B23
B31
B32
B33
Ax
Ay
A1(f1)

Fig. 19

[REV Mode]

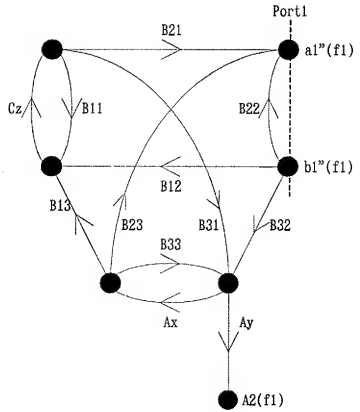


Fig. 20

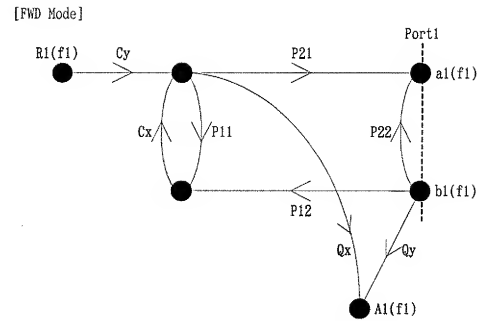


Fig. 21

[REV Mode]

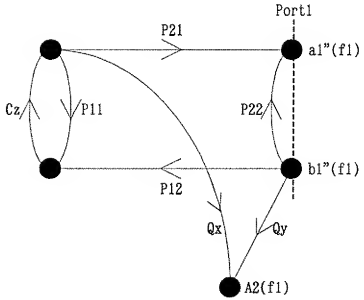


Fig. 22

[FWD Mode]

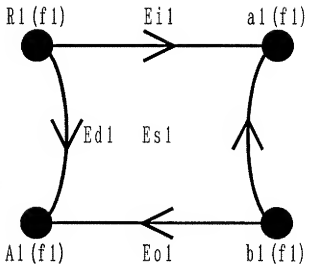


Fig. 23

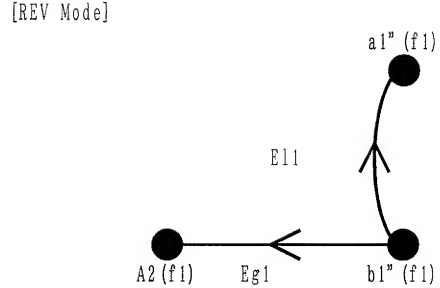


Fig. 24

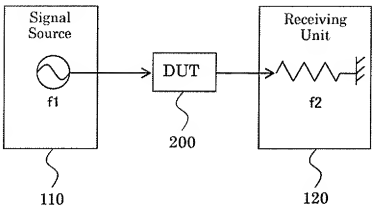


Fig. 25

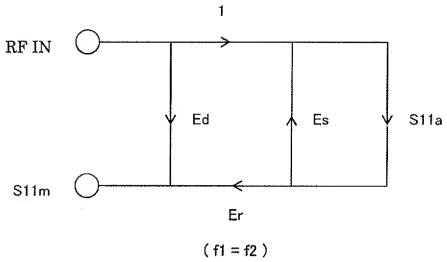


Fig. 26

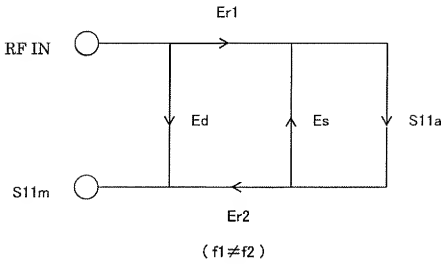


Fig. 27

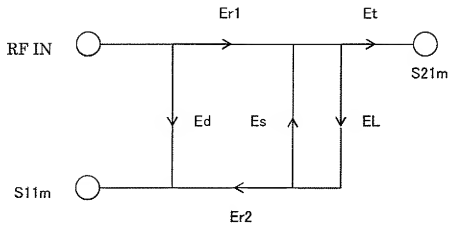


Fig. 28